

Interdisciplinary Contributions to Archaeology

Paul N. Eubanks
Ashley A. Dumas
Heather McKillop
Marius Alexianu *Editors*

Meridians of Salt

Global Perspectives on Archaeology
and Ethnoarchaeology

 Springer

Paul N. Eubanks • Ashley A. Dumas
Heather McKillop • Marius Alexianu
Editors

Meridians of Salt

Global Perspectives on Archaeology
and Ethnoarchaeology



Springer

Editors

Paul N. Eubanks 
Department of Sociology and Anthropology
Middle Tennessee State University
Murfreesboro, TN, USA

Heather McKillop 
Department of Geography and
Anthropology
Louisiana State University
Baton Rouge, LA, USA

Ashley A. Dumas 
University of West Alabama
Livingston, AL, USA

Marius Alexianu 
Faculty of History
Alexandru Ioan Cuza University
Iasi, Romania

ISSN 1568-2722

ISSN 2730-6984 (electronic)

Interdisciplinary Contributions to Archaeology

ISBN 978-3-031-96691-0

ISBN 978-3-031-96692-7 (eBook)

<https://doi.org/10.1007/978-3-031-96692-7>

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2025

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Crystallization Ponds at the Salt Valley of Añana, Basque Country, Spain. Picture courtesy: Paul N. Eubanks

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

If disposing of this product, please recycle the paper.

Contents

1	Introduction	1
	Paul N. Eubanks, Ashley A. Dumas, Heather McKillop, and Marius Alexianu	
2	Desert Wealth: Ethnoarchaeology of the Afar Salt Trade, 450 BCE-1600 CE	11
	Helina Solomon Woldekiros	
3	Resources, Exploitation, and Consumption of Salt in Anatolia (Türkiye)	23
	Gonca Dardeniz	
4	Rock Salt Mining: Insights into Traditional and Ancient Exploitation Practices from Iran and Austria	43
	Thomas Stöllner	
5	Salt Production and the Urban Center of Provadia-Solnitsata, Northeastern Bulgaria (5600–4350 BCE)	67
	Vassil Nikolov	
6	Salt Exploitation in Bosnia and Herzegovina	99
	Ivana Pandžić	
7	Salt Exploitation from the Neolithic to the Roman Empire: Ocna Sibiului and Miercurea Sibiului (Romania). An Ethnoarchaeological Approach	117
	Marius Alexianu, Andrei Asăndulesei, Felix-Adrian Tencariu, Mihaela Asăndulesei, and Roxana-Gabriela Curcă	
8	Salt Exploitation in Ukraine	137
	Svitlana Ivanova and Alexey G. Nikitin	
9	Salt and Power in Copper Age Iberia	163
	Elisa Guerra Doce, F. Javier Abarquero Moras, and Germán Delibes de Castro	

- 10 **The Open-Pit Salt Mine in the Vall Salina of Cardona Between 4200 and 3300 BC and the Socio-economic Transformations in the Communities of the Catalan Middle Neolithic** 183
Alfons Fíguls
- 11 **Production and Demand of Salt in Ancient Italy from the Bronze Age to the Roman Period** 211
Peter Attema, Luca Alessandri, Francesca Bulian, Jan Sevink, and Agostino Sotgia
- 12 **The Briquetage de la Seille (Lorraine, Eastern France)** 235
Laurent Olivier
- 13 **Salt in the Old Continent: A Journey into Spain's Ancient Saltworks and Their Origins** 257
Alberto Plata Montero
- 14 **Salt-making Traditions and Salt Trade in the Eastern Himalayas**... 295
Biswarup Ganguly and Bina Gandhi Deori
- 15 **Exploration, Discovery, and Foresight: Salt Production Archaeology in China** 317
Shuicheng Li
- 16 **Archaeological Studies of Salt Production in Japan** 337
Takamune Kawashima
- 17 **Salt Making Pottery in Prehistoric Japan: A Case Study from the Matsushima Coastal Area, Miyagi Prefecture** 357
Itsuki Okamoto
- 18 **Unbroken Salt: Brine-Boiling Pottery and Salt Cakes in the Central Philippines** 371
Andrea Yankowski
- 19 **Ethnohistory of Salt in the Mississippian and Contact-Era American Southeast** 391
Ashley A. Dumas and Paul N. Eubanks
- 20 **The Precious Gift of Salt Woman: Ethnography and Archaeology of Salt in the American Southwest** 405
Todd W. Bostwick
- 21 **Salt Archipelago: History and Archaeology of Salt Cultivation and Harvesting in the Caribbean** 419
Konrad A. Antczak
- 22 **Salt Production Technology in Highland Central Mexico: Evolution and Adaptations Through Time** 449
Blas R. Castellón Huerta

Chapter 9

Salt and Power in Copper Age Iberia

Elisa Guerra Doce , F. Javier Abarquero Moras ,
and Germán Delibes de Castro 

Abstract In recent years the archaeology of salt in prehistoric Iberia has witnessed extraordinary advances. The earliest evidence of salt production dates to the Early Neolithic (late sixth millennium BC), but intensive production did not emerge in certain regions until the Copper Age (ca. 3200 BC). It is argued here that by the mid-third millennium BC, Iberian Beaker groups—regarded as high-status individuals—gradually took control of salt production and distribution as part of their strategies to gain power.

Keywords Salt · Iberia · Chalcolithic · Forced evaporation · Bell Beaker · Power · Elites

9.1 Introduction

In the mid-third millennium BC (ca. 2500–2000 BC), during the transition from the Neolithic to the Bronze Age, a cultural complex known as the Bell Beaker phenomenon spread across central and western Europe and a strip of northwestern Africa (Bilger, 2019). While the geographic origins of this cultural complex remain debated, the Portuguese Estremadura, in the Iberian Peninsula, has yielded some of the earliest radiocarbon dates, around 2750 BC (Cardoso, 2014).

The name “Bell Beaker” derives from its most distinctive archaeological artifact: a finely handmade, richly decorated ceramic vessel with a characteristic S-shaped profile resembling an inverted bell. Beakers are primarily found alongside objects indicative of status, such as copper items, archery equipment, ivory buttons, and

E. Guerra Doce (✉) · G. Delibes de Castro
Departamento de Prehistoria, Arqueología, Antropología Social y CC.TT. Historiográficas,
Universidad de Valladolid, Valladolid, Spain
e-mail: elisa.guerra@uva.es; german.delibes@uva.es

F. J. Abarquero Moras
Museo de Burgos, Burgos, Spain

© The Author(s), under exclusive license to Springer Nature
Switzerland AG 2025
P. N. Eubanks et al. (eds.), *Meridians of Salt*, Interdisciplinary Contributions to
Archaeology, https://doi.org/10.1007/978-3-031-96692-7_9

E. Guerra Doce et al.

ro-marítima na Pré-História do estuário do
In J. Soares (Ed.), *Pré-História das Zonas*
de Arqueologia e Etnografia do Distrito de
V., & Sandu, I. (2015). Briquetage and
oric technique. *Journal of Archaeological*
015.04.016

Prehistoria de la Península Ibérica: estado
prehistórico de sal en la Alta Andalucía:
ernos de Prehistoria y Arqueología de la
in Portugal: Specialization, distribution,
1-2), 105-122. <https://doi.org/10.17735/>
e da Quinta 2 (Benavente) e a produção
o do Tejo. In *Actas do 4.º Congresso de*
do Algarve.

la explotación de sal desde la Prehistoria
nite con Toledo. *Boletín de la Asociación*
a mano decoradas de las Salinas de
a sal: investigación y puesta en valor.
Ciempozuelos, Madrid (pp. 207-236).

partinas: Un enclave prehistórico dedi-
ca de la sal: investigación y puesta en
rtinas. *Ciempozuelos, Madrid. 1 y 2 de*
Historia de la Arqueología (Memorias
II).

ía, C., & Carvajal García, D. (2002).
Ciempozuelos) y prospecciones en su

A. (2009). Resultados de varios estu-
ia. In *La explotación histórica de la*
Internacional. Salinas de Espartinas.
3-192). Sociedad Española de Historia
e Historia de la Arqueología, II).

M., & Reinoso del Río, M. C. (2017).
a (Prado del Rey y El Bosque, Cádiz)
orfoloía, 31(1-2), 123-140. <https://>

d, J. F. (2021). Las salinas de Arcos
a la Prehistoria. In M. Ayarzagüena
minero como instrumento de desar-
a Defensa del Patrimonio Geológico

Europe. Cambridge University Press,
.1017/9781009496872.

a partir de la evidencia funeraria de
<https://webs.ucm.es/info/arqueoweb/>

Weiss, H. (2016). Global megadrought, societal collapse and resilience at 4.2-3.9 ka BP across the Mediterranean and west Asia. *Past Global Changes Magazine*, 24(2), 62-63. <https://doi.org/10.22498/pages.24.2.62>

Weller, O. (2015). First salt making in Europe: A global overview from Neolithic times. In R. Brigand & O. Weller (Eds.), *Archaeology of salt: Approaching an invisible past* (pp. 67-82). Sidestone.

Wiener, M. H. (2014). The interaction of climate change and agency in the collapse of civilisations ca. 2300-2000 BC. *Radiocarbon*, 56(4), S1-S16. https://doi.org/10.2458/azu_rc.56.18325